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TI Implantable tooth replacement with ceramic abutment of zirconium oxide
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AB An implantable tooth replacement consists of an implant which can be secured in a jawbone, an abutment made of a ceramic material which can be secured to the implant by a securing screw, a tooth prosthesis, e.g. a crown or bridge, and a securing means for fixing the abutment to the tooth prosthesis. The ceramic material has a fracture toughness of .gtoreq.6 MPa/m2 and a flexural strength of .gtoreq.700 MPa, and consists of .gtoreq.90% ZrO2. These phys. properties are much superior to those of conventional sintered Al2O3 abutments. Other ceramics with similar properties, such as Si3N4 and TiC, or ceramics reinforced with fibers such as SiC fibers or whiskers, may also be used. Use of **partially sintered** or green ZrO2 facilitates machining the abutment to shape extraorally.

ST denture abutment zirconium oxide ceramic

IT Alkaline earth oxides
Rare earth oxides